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(54) **RECONFIGURABLE TACTILE-ENHANCED DISPLAY INCLUDING "TAP-AND-DROP" COMPUTING SYSTEM FOR VISION IMPAIRED USERS**

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(57) **ABSTRACT**

The invention has an active touch-sensitive transparent layer over a display screen (LCD) in which an electrically responsive material, such as silicon oil or the above-described material is trapped in a very thin layer with a diode at the top part of the layer and an anode at the bottom. The electrically responsive material changes form by expanding when a current passes through the material from the anode part of the layer to the diode. The expanded material stretches part the top layer to create raised portions of the display screen. The raised portions can be used in the following capacities: to assist a vision impaired viewer, enhance night viewing, allowing for reduced attention or resources to touch-screen manipulation, or change the optical properties of the display by creating a three-dimensional optical property in the surface of the flexible material covering the expanding layer.